

Amendments to the Claims

1-45. (canceled)

46. (new) A system, comprising:

a classification module that determines security association information associated with a plurality of packets,

wherein the classification module is configured to provide at least a portion of the security information associated with the packets to a plurality of security processing engines.

47. (new) The system of claim 46, further comprising a database including security association information, wherein the database is local to the classification module.

48. (new) The system of claim 47, wherein the database includes one or more entries, wherein each entry defines information associated with one security association.

49. (new) The system of claim 48, wherein the database is located on the same chip as the classification module.

50. (new) The system of claim 46, wherein the security association information includes a sequence number, an anti-replay window, and a lifetime of the security association.

51. (new) The system of claim 50, wherein the security association information further includes an encapsulating security payload (ESP) encryption algorithm identifier and one or more ESP encryption keys.

52. (new) The system of claim 51, wherein the security association information further includes an ESP authentication algorithm identifier and one or more ESP authentication keys.

53. (new) The system of claim 50, wherein the security association information further includes an authentication header (AH) authentication algorithm identifier and one or more AH authentication keys.

54. (new) The system of claim 50, wherein the security association information includes protocol mode information.

55. (new) The system of claim 47, wherein the database is stored in memory.

56. (new) The system of claim 55, wherein the memory is contact addressable memory (CAM).

57. (new) The system of claim 55, wherein the memory is random access memory (RAM).

58. (new) The system of claim 46, wherein the system is a router.

59. (new) The system of claim 46, wherein the system is a firewall.

60. (new) The system of claim 46, wherein the system is a network communication device.

61. (new) The system of claim 46, wherein the system is a security gateway.

62. (new) The system of claim 46, wherein the system is a server.

63. (new) The system of claim 46, wherein the system is a network line card.

64. (new) A method for classifying packets during security processing,
comprising:
receiving at least a portion of a header for each packet in a plurality of packets;
determining security association information associated with each packet in the
plurality of packets; and

for each packet in the plurality of packets, providing at least a portion of the
security association information associated with the packet to a corresponding security
processing engine in a plurality of security processing engines.

65. (new) The method of claim 64, wherein the step of determining security
information comprises:

accessing a database to determine security association information.

66. (new) The method of claim 65, wherein the step of determining security
association information further comprises:

using one or more selectors to identify a security association entry in the
database.

67. (new) The method of claim 66, wherein the one or more selectors include at
least one of destination IP address, a security protocol identifier, and a security parameter
index.

68. (new) The method of claim 66, wherein the one or more selectors include a
destination IP address, a source IP address, and a transport layer protocol.

69. (new) The method of claim 68, wherein the one or more selectors further include a source port and a destination port.

70. (new) The method of claim 65, wherein the step of determining security association information further comprises:

if no security association information exists in the database associated with the packet, generating the security association information; and
storing the security association information in an entry in the database.